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Declaration

1. Legal Disclaimer

This instrument is intended for lawful service, repair in accordance with the laws of the state in which the product is being sold or used. NanNing YanHua Electronics Co., Ltd., sells this product for lawful use only. It is a precondition to the acceptance of our company's product that the user shall use this product only in accordance with the laws of the state in which the product will be sold and shall not use the product for any unlawful purposes. Otherwise, the user shall undertake all the consequent responsibilities.

2. The user shall not open the instrument to avoid any damage to it. Otherwise, the user shall take all the consequent responsibilities.

3. The user should read the User's Manual carefully before using the instrument to avoid any misuse.

4. Save the original data before any adjusting operation.

5. This instrument is easy to use, but the user should pay particular attention to the chip removing & soldering. If not confident in your welding, do more exercise with the adapter and spare chips.

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Brief Introduction

YH6000 (the Data Processor for Automobile Odometer and Audio) is an updated product based on YH3000A, a very popular set among his increasing users. After updated, large scale vehicles extended and more powerful functions it has. It's mainly used for instrument clusters adjusting and audio decoding and also for memory programming.

Features:

1. Handhold operation, quick and convenient; Connect with computer, updating through Internet.
2. Vehicles extended, most models up to 2004.
3. Automatically read out mileage and adjust directly at will.
4. USB port: Plug and Play.
5. Device intelligent identify, all devices can use the same socket.
6. Can be use as a programmer. Let you read, save, display, edit the memory and also send the data back to the manufacturer for technical support.
7. Large display screen, device data can be browsed and analyzed.

Body and Adaptors

Ⅰ. YH6000 Body

Name	Usage
1. 25-Pin Socket	Connect Adaptor
2. USB	Connect Computer
3. Power	Connect Power Supply (+12V)
4. Display Screen	7E0200: Version No.
5. F1	Delete files
6. ▲	Up
7. F2	Browse Files
8. ▼	Down
9. Right	Rightwards
10. OK	Select items/ Connect Computer
11. Left/ Backspace	Leftwards/ Backspace
12. ESC	Exit
13. No. Key	0~F

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Ⅱ. Adapters

1. Normally, audio code and Mile/Km are stored in the device on the circuit board. Put the device onto/into the adapter, and then connect YH6000 to the adapter to read/write the device.

93C56	1). Chips: IC in which stores Mile/Km, audio code and anti-theft code and other data. Most of them have 8 pins; the data stored in can be read/written. 2). 93 series Chips have Standard and Non-standard, two kinds. More information, please refer to the Appendix.

2. Two Adapters: Universal Adapter and Remove-free Adapter (or Program on board Adapter). Difference between:
   2.1 Under normal condition, the chip should be removed from audio or odometer then use Universal Adapter to read/write.
   2.2 For some odometers whose chip hard to remove, such as Honda 2.4, can use Remove-free Adapter to adjust without removing the chip from board. **But only available for those we offer wiring diagrams.**
3. Adapters Description:

   3.1 Universal Adapter

Name	Function
LED light	Insert the adapter it won't turn on; when reading the device it turns on.
93CS56(14pins)	For welding 93CS56(14pins).
Vehicle Speed Signal (车速信号)	For future use.
For BMW3/5 only	1. Some BMW clusters have a box backside and the chip is in it. 2.take the box from the cluster then insert it into this socket, no need to open the cluster.
Chip Area	1. For 8-pin IC, such as 93/24/25series. 2. A and B, and two welding area are the same, can use either of them. 3.Chip mounting. Insert it into socket for DIP chips; weld it onto welding area for SMD chips. Pay attention to the direction when welding or inserting (see "Identify Chip Pin's Sequence") and check any short between pins after welding.

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3.2 Remove-free Adapter

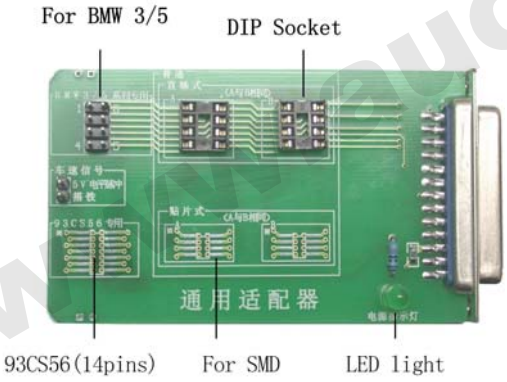
a. Only available for those we offer wiring diagrams.

b. For the odometer with protected lacquer on the circuit board or IC, heat the lacquer and clear it and then to weld.

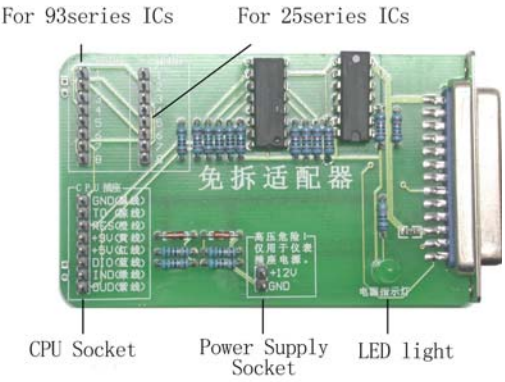
c. Use the 8-colour cables to connect 8-pin (93/25 series) socket from the adapter to the 8 points marked on the wiring diagram, the first cable is for Pin1, and the second for Pin2…the 8th for Pin8.

d. Check for correct welding before inserting the adapter into the instrument to adjust!!

Name	Function
LED light	Insert the adapter it won't on, when reading the device it turns on.
Power Supply	Output +12V
93 series	For cluster with 93 series ICs, such as Honda 2.4.
25 series	For cluster with 25 series ICs, such as Santana 2000.
CPU socket	For future use

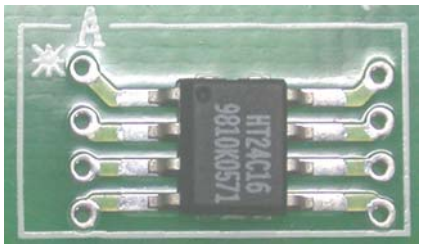


Universal Adapter

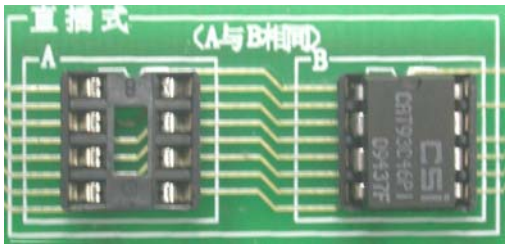


Remove-free Adapter

4. Chips Mounting



SMD Devices



DIP Devices

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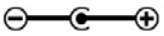
Operation

Ⅰ.Installation

1. Work independently

Plug in to start the instrument, it'll ask for a password in 5 seconds.
Password: **6000** (Black it for safety)

Important: different countries use different voltages, please note that the power adapter it used: the input volt should be 100~220V, frequency 50/60HZ; output 12V/1.5A; and should be 

2. Work with computer

Use a USB cable to connect the computer and the instrument.
Plug in, and then press "OK" to connect to the host.

Ⅱ.Operation

Items	Description
Decode Audio	Automobile audio will be locked up when power-off improperly. It only can work again after inputting the code.
Adjust Cluster	To modify Kilometers. Change the Kilometer after odometer repairing or replacing.
Resume Data	To resume the original data. The device stores other data except kilometer and audio code, so you should write the original data into when the device data is lost or replacing with a new one.
Device Operation	Use as a programmer. Let you read/write, save, display, edit and copy the device data.
File Operation	View and delete the saved data.

Audio Decoding

Audio mainly has two kinds: with IC, to decode by modifying the device memory; with address code, to decode by connecting diode or removing elements.

Audio with IC

1. Operation

1-1 Please refer to《Diagrams and Charts Collection》for the audios supported.
1-2 Audio type with "-" behind, the code cannot be changed. Write the right file to get a fix code and the original one cannot be used.
Example: to write file "BMW-PH7850-1118" into the device, the code should be "1118" behind "-", if only "o" behind "-", indicates the audio can run without any code.

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1-3 The audio with no symbol behind indicates the code can be changed, such as "BE1328".

1-4. BORO, POLO audio can use PASSAT B5 instead to decode.

2. Example for decoding.

Now a BENZ BE1328 needs to be decoded, steps as follows:

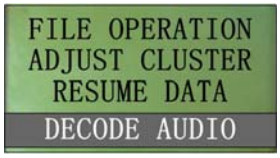
2-1 Look up《Diagrams and Charts Collection》, find the type under "BENZ" in《Audio Decoding • IC type》 to confirm this instrument can do this type.

2-2 We can know from 《Diagrams and Charts Collection》that the chip the audio used is DIP 93C46.

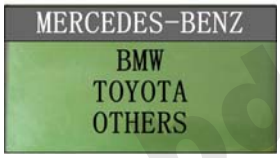
2-3 Find and remove DIP 93C46 from circuit board, then insert the chip into the adapter.

2-4 Insert the adapter into the instrument.

2-5 Start the instrument and press▲,▼ to select "Decode Audio" then press "OK".



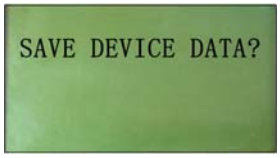
6. Select "BENZ" then Press "OK".



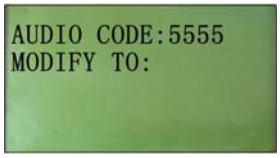
7. Select "BE1328" and press "OK".

8. It prompts you "Well Connect the Device!" and displays chip the audio used. Press "OK" to continue.

9. Then the instrument prompts you "Save the Device Data?". You may not save the data because the audio was locked up and press "ESC" to exit.（if save, press OK）



10. It will read the code directly after "ESC" or "OK", then put this chip back to run the audio with the code obtained.



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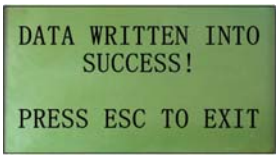
11. If you want to change the code, press “OK”. When it prompts you “Data Written into Success!”, put the chip back to run the audio with this new code.



Address code type

(1) operation

the types it supports are listed in《Diagrams and Charts Collection》.

(2) Example:

Now a HONDA 1XA0 needs to be decoded.

1. Look up《Diagrams and Charts Collection》, find the type under “HONDA” in《Audio Decoding • Address type》to confirm this instrument can do the type.
2. Open the audio.
3. Find 93C46 from the board and remove it.
4. Then mount the audio and it can be normally used again without any code.

Cluster Adjusting

(1) Operation:

⚠ 1. Types available please refer to《Diagrams and Charts Collection》. If you have a car or cluster not listed to do, please contact the manufacturer. Do not try it yourself or use other type instead to adjust. Or the cluster may be damaged.

⚠ 2. For some special clusters (say, with 2 chips), please refer to the pictures shown in《Diagrams and Charts Collection》.

⚠ 3. Some clusters whose hands cannot be pull out. Do read the appendix《**Attention for Cluster Adjusting**》first.

⚠ 4. **Save the data before any adjusting** to avoid any data lost caused by chip damaged or mis-selecting the type. If data incorrect, it may cause car no start, cluster no displays, and cluster running incorrectly and cluster hand moving in disorder.

⚠ 5. The instrument will auto-read the original kilometer when adjusting. If similar to the actual Km (difference should less than 100Km), it can be adjusted; otherwise, please contact the manufacturer for solution.

6. It has some original data except that the user saved. When data lost or using a new chip, the original data should be written into before adjusting, or the odometer cannot work properly. You can resume the original data you saved or select “Resume Data” operation to resume the data it has.
7. Should use the original chip to adjust. Use a new one when the original damaged.
8. Odometer adjusting flow:

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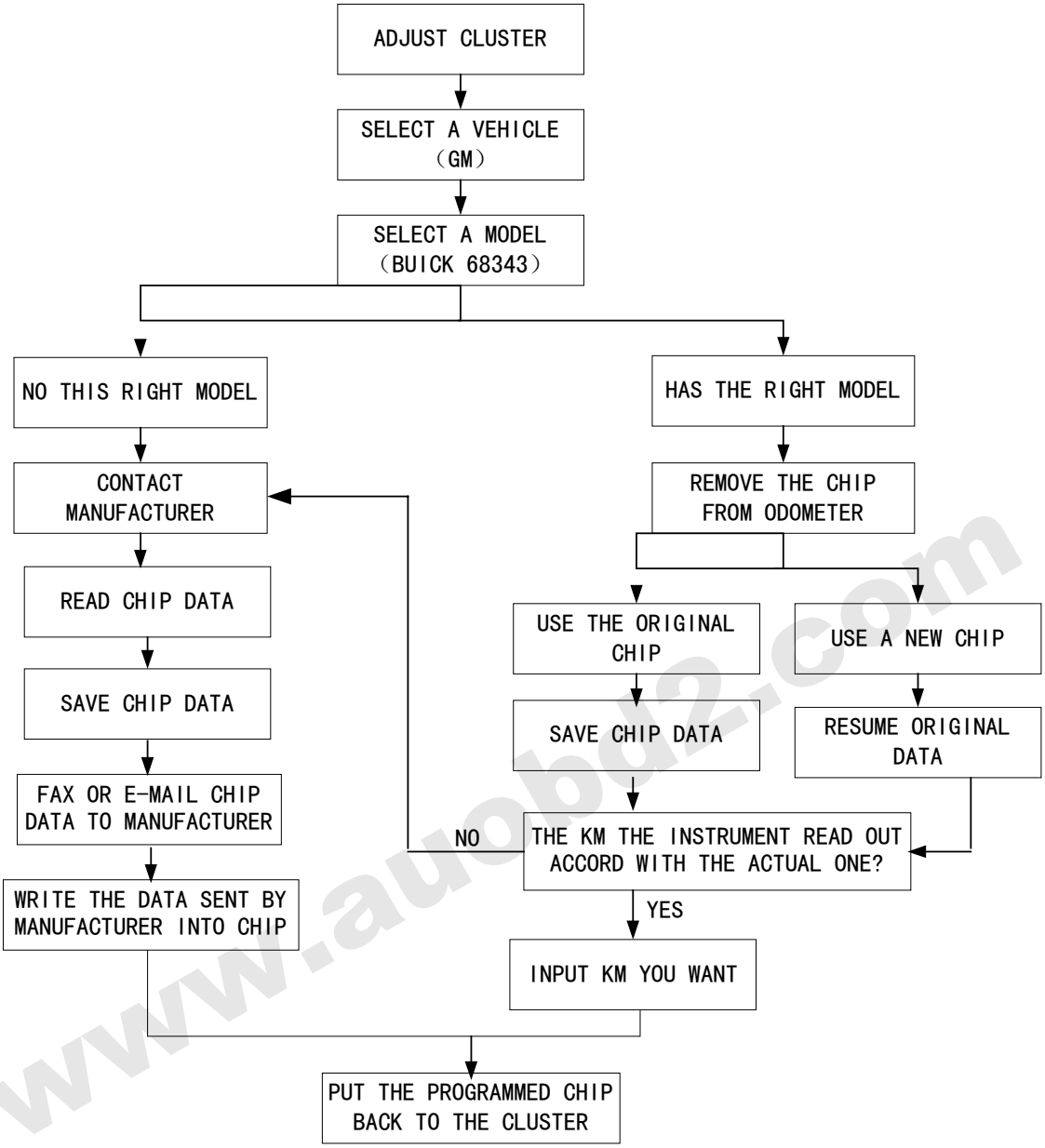
ADJUST CLUSTER
SELECT A VEHICLE (GM)
SELECT A MODEL (BUICK 68343)
NO THIS RIGHT MODEL
HAS THE RIGHT MODEL
CONTACT MANUFACTURER
REMOVE THE CHIP FROM ODOMETER
READ CHIP DATA
USE THE ORIGINAL CHIP
USE A NEW CHIP
SAVE CHIP DATA
SAVE CHIP DATA
RESUME ORIGINAL DATA
FAX OR E-MAIL CHIP DATA TO MANUFACTURER
NO
THE KM THE INSTRUMENT READ OUT ACCORD WITH THE ACTUAL ONE?
WRITE THE DATA SENT BY MANUFACTURER INTO CHIP
YES
INPUT KM YOU WANT
PUT THE PROGRAMMED CHIP BACK TO THE CLUSTER

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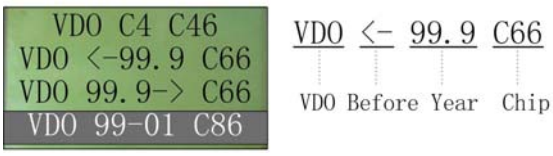
Remarks:

1. Type



Character	Description	
VDO	VDO Company	VDO clusters
—〉, 〈—	Before, Since	"VDO〈—99.9 C66" indicate before Sep. 1999
99.9	Year	September 1999.
C66	Chip	Chip it used: 93C66、93LC66、C66M3
V1, V2	Formula No.	"BORA V1 C86" "BORA V2 C86" indicates BORA has two kind formulas, should select the right one.

Example: "VDO〈—99.9 C66" means this cluster made by VDO company before Sep. 1999, the chip it used is C66.
"ODYSSAY V1 C46" means ODYSSAY cluster with IC C46. Use formula V1.

2. Select type.

① Select the type according to the vehicle.
E.g. Camry 2.2, Camry 2.4 should select "Camry C46" under "TOYOTA".

② When several options under a vehicle, subject to the chip.
E.g. Buick has "Buick 68343" and " Buick ST14771" under "GM". If the chip is 68343, use the first one; if ST14771, use the second one.

③ When several options under a chip. Refer to《Diagrams and Charts Collection》.
E.g. "Accord V1 C46", "Accord V2 L56R" and "Accord V3 L56R" under "Honda". Chip 93C46 use the first one; for chip L56R, please see the 《Cluster Adjusting • Models Available》 under《Diagrams and Charts Collection》first to select as the instruction tells. If "Import Accord", use the second one; and for "Domestic Accord 2.4", use the third one.

3. Resume original data.
You can resume the original data you saved or select "Resume Data" operation to resume the data it has.

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(2) Example.

Example 1: Now a Buick cluster needs to be replaced, we need to change "0 km" to be "25000km".

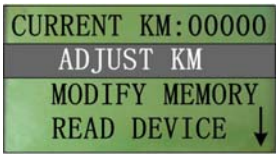
1. Look up 《Cluster Adjusting • Models Available》 under 《Diagrams and Charts Collection》, and find "Buick 68343" and "Buick ST14771" under "GM". Select the right type according to the chip on circuit board.
2. Open the cluster and find the chip on board.（mainly 8-pin IC with type on it）, if "68343" or "ST14771" is found, commonly it can be adjusted.
3. Remember its direction and remove it from board then mount it onto the adapter (pay attention its direction when welding or inserting).
4. Insert the adapter into instrument.
5. Start the instrument. Press ▲,▼ and select " Adjust Cluster" then press "OK".

6. Select "GM" and press "OK".

7. Select "Buick 68343"（if ST14771, select "Buick ST14771"） and press "OK".

8. It prompts you "Well Connect the Device!" and displays the chip type. Press "OK".

9. The instrument starts to read data and calculate the kilometer. Now note that if the kilometer calculated is similar to the actual one (difference should less than 100Km). If OK, do next operation. If not, the formula may change, please contact the manufacturer. Do not continue to adjust.



10. Save data first to avoid any mistake. Press ▲ or▼ to select "Save File" and press "OK".

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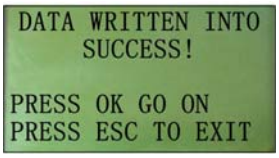
11. If it displays as below, please enter a file name, say, “01B”. When adjusting error occurs, browse file 01B to resume the data.

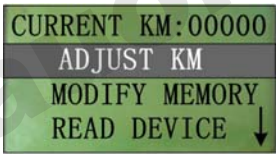
12. Select “Adjust Cluster” and press “OK”.

13. Press number keys “2”→“5”→“0”→“0”→“0” to enter 25000Km and press “OK” to write into. Put the programmed device back onto the board after “Data Written into Success”.



Example 2: If the cluster cannot work properly, need to resume the data.

1. Do 1~9 operations as Example 1, the screen display below will come.



2. Press ▲, ▼ and select “ Browse File” then press “OK”.

3. Select “01B” and press “OK”.

4. When “Data Written into Success” displays, data resuming completed.

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Data Resuming

For resuming the original data.

(1) Operation:

1. It has some original data except that the user saved. When data is lost or using a new chip, original data should be written into before adjusting. Or the odometer kilometer may display properly, but cluster running may be incorrect or car no start.
2. Volkswagen with Anti-theft II or III system, such as Passat B5, Audi A6, Bora and Polo, its kilometer and anti-theft code are stored in a same chip. Resuming the data will make the anti-theft code changed, so after resuming is completed, need to process by trouble coder decoder to start the car.

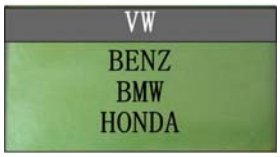
⚠ **All the data may be covered when doing this operation and cannot be resumed. Important data must be saved first!!!**

(2) Example:

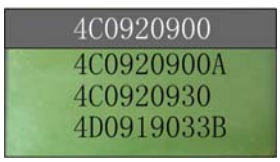
Now we have a VW A6-1.8 with barcode 4C0920900 needs to resume the data because of lost data due to a damaged chip. Note: bar code commonly on the cluster.

1. Look up《Diagrams and Charts Collection》and find "4C0920900" under "VW" in《Data Resuming • Original Data》 to confirm this instrument has original data for this type.
2. Put a new chip (the original one damaged, the chip used: 93C86) onto the adapter and note its direction.
3. Insert the adapter into the instrument.
4. Start the instrument and select "Resume Data" and press "OK".

5. Select "VW" and press "OK".



6. Select "4C0920900" and press "OK".



7. It prompts you "Well Connect the Device!" and the chip used displays. Press "OK".

8. Then it prompts you "Save the Device Data?" Press "ESC" because it's a new device.

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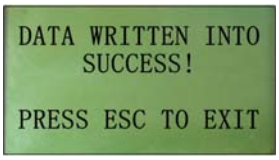
9. The instrument writes the data into this device. When it prompts you “Data Written into Success!” press “ESC” three times to exit.



10. You need to adjust the odometer to a wanted kilometer after original data written into. Refer to “Cluster Adjusting”. That’s to select “Adjust Cluster”→“Audi”→“A6”→“VDO 99-01 C86”→“Adjust Km”→Input a Km→“OK”.
11. Mount the cluster back to car. As this car with Anti-theft II system, the kilometer and anti-theft code are in one chip, anti-theft code will be changed when rewriting original data. So need to process by trouble code decoder after adjusting.
    Note: Those clusters with no anti-theft can work normally again after back to car.
12. To process with a trouble code decoder, you need to input an anti-theft code; please contact the manufacturer to get this code.

Device operation

To process the chip, that’s to read, save, display, edit and copy chip data.

(1) Operation

Items	Description
Modify Memory	Display and Modify the data, the data will be written into the device while modifying.
Read Device	Read device data
Save File	Write the device data into the instrument.
Browse File	Write the data saved in instrument into the device.
Program	Write all the displayed data into device.

(2) Example:

Now we have a 93C46 to be processed.

1. Start the instrument, press ▲,▼ to select “Device Operation” then press “OK”.

2. Select “93 series” then press “OK”.

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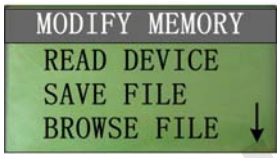
3. Select “93C46” and press “OK”.

4. The instrument prompts you “Well Connect the Device!” . Press “OK”.

5. The screen below comes.



6. On this screen, you can do the following operations.

Operation	Steps
Read Device	Select “Read Device”
Save File	Select “Save File”→“OK”→input a filename, say “001”→“OK”.
Modify Memory	Select “Modify Memory”→input the number directly.
Change data in address unit 0020 to be A8	Select “Modify Memory”→“F2”→input 0020→“OK”→“A”→“8”
Resume Data	Select “Browse File”→Select a filename, say “001”→“OK”.
Copy Device	Read data→Save data→mount another chip onto/into adapter→ select “Browse File”→Select a filename, say “001”→“OK”.

File Operation

To view and delete the data saved.

(1) Operation

1. User save the data as a file in the instrument when do adjusting operation or other operations. Every data has a filename.

2. File delete cannot be resumed!!!

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(2) Example

Now you have adjusted an Audi A6, Toyota Camry and Volvo S70 and saved the data in file “001”, “002” and “003” respectively.

Operation	Steps
View Audi A6 data	Select “File Operation”→“OK”→Select filename “001” →“OK”→“F2”.
View Camry data in Address Unit 0030	Select “File Operation”→“OK”→Select filename “002” →“OK”→“F2”→input 0030→“OK”.
Only delete Volvo S70 data	Select “File Operation”→“OK”→Select filename “003” →“OK”→“F1”.
Delete All	Select “File Operation”→“OK”→“F2”→“OK”.

For audio and cluster not supported.

(1) Operation

1. Audio

That with IC, you can send the data back to the manufacturer to let the technician to analyze; or find another same type with a known code, copy the data to the one to be decoded then these two have the same codes.

For those with no IC, we need to collect decoding information.

2. Cluster

For most cars you can send the data back to the manufacturer and tell the current kilometer/Mile, then the technician can solve the problem for you.

For some clusters you should send them back manufacturer for solution.

(2) Example

Now we have a new car, its kilometer needs to be adjusted, and we cannot find it in the instrument. Please send the data (through E-mail or by Fax) back to the manufacturer.

1. Open the cluster and find the chip（commonly 8-pin IC with characters on it）.
2. Supposed the chip it used is 93C46, remove the chip from circuit board and put it onto/into the adapter.
3. Insert the adapter into the instrument.
4. Start the instrument, press ▲,▼ to select “Device Operation” and press “OK”.

5. Select “93 series”, press “OK”.

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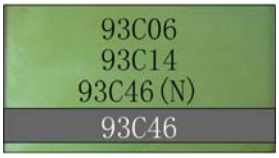
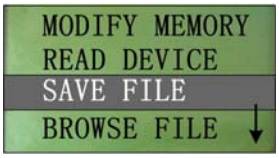
6. Select “93C46” and press “OK”.



7. It’ll prompt you “Well connect the device!”. Press “OK”.

8. Select “Save File”, press “OK”.



9. Name a filename say “002”.

10. Turn off the instrument, connect it with computer.
11. Plug in. when the screen displays, press “OK” to connect to host.
12. E-mail File “002” or print and fax it to the manufacturer and please write current Km/Mile and Km/Mile you want.
13. Modify the data as the fax or e-mail sent back by the manufacturer.

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III.Work With Computer

It can be used with computer to update through Internet or send data to manufacturer. Details please see the software instructions.

Ⅳ.Update

1. Connect it with computer (computer should be on line).
2. Run the software.
3. Start the instrument and press “OK” within 5 seconds, screen displays “Connecting Host”.
4. Click “Products Update” in software.
5. Do as software tells until it prompts you “Updating Completed”

Note: Update time is listed on website.

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Appendix

Ⅰ. Attentions when adjusting

1. Must save data first before adjusting.
2. A cluster commonly has one chip, usually 8-pin IC. Please note its direction when removing it from board.
3. Device can be rewritten times. The same type device may use in different cars, but the data may be different. E.g. Citroen 988 and Hongqi Century Star use the same kind device X5045, but memory in each is totally different.
4. If you want to verify the cluster working properly, electrify it as picture shown in《Diagrams and Charts Collection》. Usually the power supply should be +12V, but HONGQI +5V.
5. For some clusters, you need to pull out the cluster hand to remove the chip.
   5.1 Do not pull those with hairspring (that is the hand may return automatically when power off). For those hands don't return when power off and return to "0" when power on, it can be pull out, such as Passat B5, A6, Bora and Polo, if no especial instruction.
   5.2 For BMW 530 and some other BMW clusters with hairspring, clamp the rotor to make it not move then pull the hand out. Or the cluster may be damaged.
   5.3 Buick Sail hand is easy to damage when pulling.
   5.4 For Honda 2.0, 2.4, do not pull the hand; you can make a hole on the plastic.
   5.5 For Jetta, do not remove the motor, or it may make the hand wiggle. Just pull the hand it may be OK.
6. VW with anti-theft system:
   6.1 With anti-theft II: Passat B5 (1.8/1.8T), Audi A6 (1.8/1.8T), Bora and Polo.
   6.2 With anti-theft III: Passat B5 (2.0/2.8), Audi A6 (2.4/2.8)
   6.3 Switch off the ignition before removing the cluster. Do not start the car after removing it from car, or the anti-theft may start.
   6.4 Select the right type and use the original chip to adjust, the anti-theft will not start.
   6.5 When using a new chip or data was lost, resume the original data first.
      6.5.1 Resume original data you saved and then to adjust, the anti-theft may not start.
      6.5.2 Resume the original data in the instrument and then to adjust. When putting it back car, the anti-theft starts, need a trouble code decoder.
7. For some cars, the kilometer/Mile stores in two places, such as Peugeot, Picasso, New Benz, New BMW. Do not try to modify yourself if not supported.

   Example: You have a Picasso cluster to be adjusted and you have saved data and then to modify it. It may display 990,000Km after back to car due to incorrect modifying and now another place will memorize this Km, it may be 990,000Km even if you resume the data.
8. For BMW with 35080, replace it with a new one if you want a lower Km.

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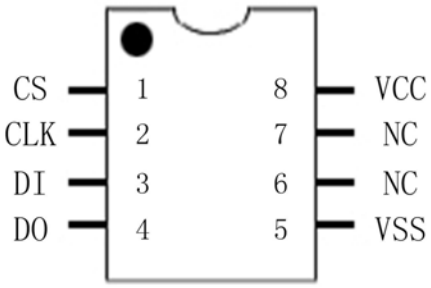
Ⅱ. Identify Special Devices

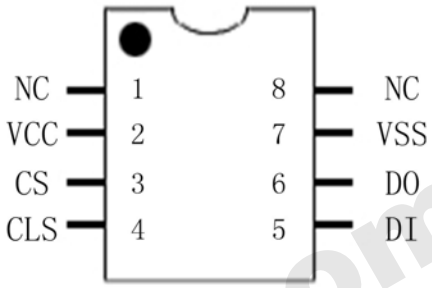
Standard and Non-standard 93C46, 93LC46, LC46

1. C46 has Standard and Non-standard, most are standard.
2. Non-standard ones are used in some audios, such as Toyota 51703, Mitsubishi 9059, Ceriro CT016 etc.
3. For Non-standard chips, should select “Device Operation”→“93C series”→ “Non-standard 93C46” to read/write.



Standard package pins layout and features

On board, Pin5---GND; Pin7---Null
or Pin6, Pin7, Pin8 connect together

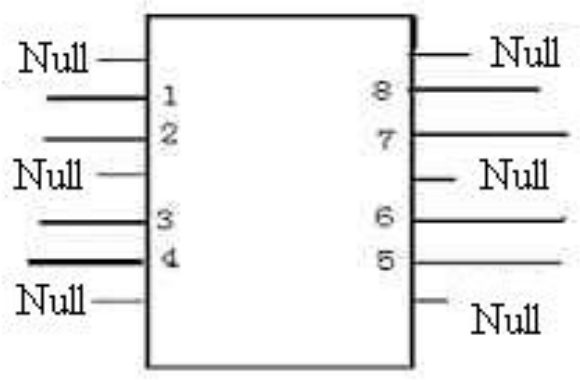


Non-Standard package pins layout and features

On board, Pin7--GND; Pin1--Null
or Pin1, Pin2 connect together

Difference between 14pins-93CS56 and 8pins-93C56

1. Chip usually has 8 pins, but old Benz C class use 14-pin 93CS56.
2. 14-pin 93CS56 can be replaced by 8-pin 93C56, connection as below.
3. On Universal Adapter, has a special area for 14-pin 93CS56.



14pins-93CS56 and 8pins-93C56

14-pin 93CS56 has 6 null pins

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III. Chip Replacement

Original Device	Replacement	Note
9314	93C46	9314 cannot substitute for 93C46
93C06		93C06 cannot substitute for 93C46
C46M6		
L56R	93C56 93C66	
DD72	93CS66	DD72 cannot substitute for 93CS66
DD82		DD82 cannot substitute for 93CS66
S220		S220 cannot substitute for 93CS66
CS56		CS56 cannot substitute for 93CS66
C56M6		C56M6 cannot substitute for 93CS66
93C56	93C66	93C56 cannot substitute for 93C66
93C××	93LC××	93LC work volt wider.
85C72	24C16	85C72 cannot substitute for 24C16
85C82		85C82 cannot substitute for 24C16
24C01		24C01 cannot substitute for 24C16
24C02		24C02 cannot substitute for 24C16
24C04		24C04 cannot substitute for 24C16
24C08		24C08 cannot substitute for 24C16
X24C01	----	X24C01 and 24C01 cannot use in exchange
D6253	24C16 (or 24C01)	D6253 cannot substitute for 24C16
D6254		D6254 cannot substitute for 24C16
PDH001	X2444P (or X24C44)	
PDH004		
68343	25010 25020	
X5043	X5045 X25045	
95080	25080	
95160	25160	

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Ⅳ. How to Remove and Weld Devices

Ⅰ.Welding preparation

1.Soldering Iron selection

Soldering iron must be connected to a reliable GND, If have no constant temperature soldering iron, then select the soldering iron of 20W (heater inside) or iron of 25W (heater outside); The inside one should be less than 25W, the outside should be less than 30W.

2.Welding-aid selection

Use rosin as welding-aid substance, never use strong corrosive soldering tin paste, if rosin has been carbonized & becomes black, replace it.

3.Soldering wire selection

Select rosin activated core wire with low melting point.

Ⅱ.Chip Removing

1. When removing DIP device, use a suction gun or suction pipe to clean welded tin. Do not pull it by force.
2. When removing SMD device, smelt more rosin to the pins and use soldering iron to heat the pins until the device gets entire loose, and then remove it. Do not pull it by force.
3. Heating time should not be too long to avoid any damage to the chip.
4. The chip on board is commonly protected by protecting lacquer, use soldering iron to heat protecting lacquer at first (heat to 70-80℃), then remove the chip after the protecting lacquer is cleaned.

Ⅲ.Chip welding

1. Welding time should not be too long to avoid any damage to the chip
2. Soldering iron is easy to be oxidized in high temp for a long time, clean the head of the soldering iron often to keep it clean.
3. Heat transferred by soldering tin when welding, put soldering iron head on chip will do no good to welding.
4. The chip shall not be moved or quivered before welding concreting.
5. When welding SMD, weld two diagonally pins to fix chip first, then weld others.

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V. How to identify the device pin's sequence

IC	Method
IC with a cut	Put chip as diagram shown below. The first left pin of the bottom row is Pin 1. The pins sequence is P1, 2, 3, 4, 5, 6, 7, and 8 in counterclockwise.
IC with ●	Put chip as diagram shown below. the pin near ● is Pin 1. The pins sequence is P1, 2, 3, 4, 5, 6, 7, and 8 in counterclockwise.
IC with character only	Put chip as diagram shown below. The first left pin of the bottom row is Pin 1. The pins sequence is P1, 2, 3, 4, 5, 6, 7, and 8 in counterclockwise. (Pay attention to the character)

93C56

VI. Trouble shooting

Failure	Possible Causes	Solution
Device not well connected or Chip error	1. Select wrong type	Check carefully again
	2. Chip not well welded	
	3. Short between chips	
	4. Adapter not well inserted	
	5.Chip damaged	Use another same kind to test
	6.Chip is non-standard 93C46	Select "Non-standard 93C46" to read/write
Same Filename	The file already saved	Input another name
No Temporary File	No data saved by user in the instrument	
Connect Host, Long Time no Response	Cannot communicate with the computer	1.Check if the software open 2. Check if USB cable well connected
No Display	No power input	1. Check for the power supply 2. Check for output. It should be +12V
	Instrument Damaged	Send it back to manufacturer for repair

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